What is claimed is:

1. In a solvent extraction process for preparing microspheres of an antigen containing biodegradable poly(DL-lactide-co-glycolide), the improvement comprising:

preparing a lyophilized antigen-sucrose matrix; adding acetonitrile solvent to the antigen-sucrose matrix to form a solution;

preparing a solution of a biodegradable poly (DL-lactide-co-glycolide) polymer by adding acetonitrile solvent to the polymer;

adding the biodegradable poly (DL-lactide-co-glycolide) polymer acetonitrile solution to the antigen-sucrose acetonitrile solution;

adding an oil to the poly (DL-lactide-co-glycolide) polymer-sucrose-antigen solution to form an emulsion having a controlled viscosity, that corresponds to a predetermined average particle size of distributions of microspheres of poly (DL-lactide-co-glycolide) biodegradable polymers of from about 0.5 to about 7.0 micrometers;

centrifuging the emulsion of controlled viscosity and removing a supernatant to obtain microspheres of the predetermined range of particle size distributions.

2. The process of claim 1, wherein the oil is selected with a predefined viscosity to form the microspheres.

3. The process of claim 1, wherein a thickening agent is added to the oil to increase its viscosity.

4. The process of claim 1, wherein the oil is prediluted with an extractant solvent.

5. The process of claim 1, wherein the oil is a paraffin oil in which the viscosity is adjusted by preheating to a temperature of desired viscosity.

6. The process of claim 1, wherein relative ratios between the lactide and glycolide is 50:50.

7. The process of claim 1, wherein the average particle size distribution is from about 1.0 to about 2.0 micrometers.

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Please add claims 8-24 as follows:

Claim 8. The process of claim 1, wherein the oil is a paraffin oil.

Claim 9. The process of claim 8, wherein the viscosity of the paraffin oil is reduced by diluting it with heptane or iso-octane.

Claim 10. The process of claim 2, wherein the viscosity of the oil is reduced to produce larger spheres.

Claim 11. The process of claim 3, wherein the thickening agent is polybutylene.

Claim 12. A method of controlling average particle size of agent containing microspheres in a solvent extraction process, comprising

adjusting a viscosity of an oil to a value that corresponds to a predetermined average particle size of microspheres to control said size of said microspheres;

adding said oil to a biodegradable polymer –stabilizer agent solution emulsion;

centrifuging the emulsion;

and removing said microspheres of said predetermined average particle size.

Claim 13. In a solvent extraction process for preparing microspheres of an agent containing biodegradable polymer, the improvement comprising:

preparing a lyophilized agent-stabilizer matrix; adding solvent to the agent-stabilizer matrix to form a solution;

preparing a solution of a biodegradable polymer by adding solvent to the polymer;

adding the biodegradable polymer solution to the agent-stabilizer solvent solution;

adding an oil to the polymer-stabilizer-agent solution emulsion having a controlled viscosity that corresponds to a predetermined average particle size of distributions of micropspheres biodegradable polymers;

centrifuging the emulsion of controlled viscosity;

and removing a supernatant to obtain microspheres of the predetermined average particle size of distributions.

Claim 14. The process of claim 13, wherein said biodegradabel polymer is a biodegradable poly(DL-lactide-co-glycolide) polymer.

Claim 15. The process of claim 13, wherein said agent is an antigen or chemotherapeutic agent.

Claim 16. Micropheres containing an agent wherein said micropheres are prepared by the process of claim 13.

Claim 17. An immunostimulating composition comprising an encapsulating-microsphere of a biodegradable polymer having an average particle size distribution wherein a majority of the microspheres will be taken up by a villous epithelium section of an intestines of a mammalian subject when administered as a vaccine against diseases caused by enteropathogenic organisms.

Claim 18. An immunostimulating composition comprising an encapsulating-microsphere of a biodegradable polymer having an average particle size distribution wherein a majority of the microspheres will be taken up by a Peyer's patch section of an intestines of a mammalian subject when administered as a vaccine against diseases caused by enteropathogenic organisms.

Claim 19. A composition comprising an encapsulating-microsphere of a biodegradable polymer having an average particle size distribution wherein a majority of the microspheres will be taken up by a villous epithelium section of an intestines of a mammalian subject when administered.

Claim 20. The composition of claim 19, wherein said biodegradable polymer comprises a poly (DL-lactide-co-glycolide) copolymer.

Claim 21. The composition of claim 19, wherein said average particle size distribution is about 0.5 to about 2.0 micrometers.

Claim 22. A composition comprising an encapsulating-microsphere of a biodegradable polymer having an average particle size distribution wherein a majority of the microspheres will be taken up by a Peyer's patch section of an intestines of a mammalian subject when administered.

Claim 23. The composition of claim 22, wherein said biodegradable polymer comprises a poly (DL-lactide-co-glycolide) copolymer.

Claim 24. The composition of claim 22, wherein said average particle size distribution is about 1.0 to about 7.0 micrometers.